AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

1-13. (Canceled).

14. (Previously Presented) A method for rollover stabilization of a vehicle in a critical driving situation, comprising:

ascertaining a mass of the vehicle,

executing a rollover stabilization algorithm,

the rollover stabilization algorithm intervening in a driver operation in a critical situation using an actuator in order to stabilize the vehicle; and

estimating information on a center of gravity of the vehicle;

wherein the rollover stabilization algorithm is executed as a function of the vehicle mass and the information on the center of gravity of the vehicle, and

wherein the information on the center of gravity of the vehicle is derived from an estimated characteristic speed.

15. (Previously Presented) The method as recited in claim 14, wherein the mass of the vehicle is estimated using an algorithm.

16-18. (Canceled).

19. (Previously Presented) The method as recited in claim 14, wherein the information on the center of gravity of the vehicle is ascertained from the estimated characteristic speed and from a ratio of the contact patch forces of opposite wheels during cornering.

20. (Previously Presented) The method as recited in claim 14, wherein one of an indicator variable or a characteristic property of the rollover stabilization algorithm is determined as a function of one of the mass of the vehicle or the mass of the vehicle and information on the

center of gravity of the vehicle, the release of deactivation of the stabilization intervention being a function of the indicator variable.

21. (Previously Presented) The method as recited in claim 14, wherein one of a control threshold value, a system deviation or a controlled variable of the rollover stabilization algorithm is determined as a function of one of the mass of the vehicle or the mass of the vehicle and the information on the center of gravity of the vehicle.

22. (Withdrawn) A vehicle dynamics control system for rollover stabilization of a vehicle in a critical driving situation, comprising:

a control unit in which a rollover stabilization algorithm is stored;

a sensor system to record current actual values of driving state variables; and

an actuator to carry out a stabilization intervention when a rollover-critical situation is detected;

wherein using the sensor system, information is ascertained on a mass of the vehicle and the rollover stabilization algorithm is configured so that a behavior of the control system is a function of the mass of the vehicle.

23. (Withdrawn) The vehicle dynamics control system as recited in claim 22, wherein the control unit includes an algorithm for estimating the mass of the vehicle.

24. (Withdrawn) The vehicle dynamics control system as recited in claim 22, wherein the control unit includes an algorithm for estimating information on a center of gravity of the vehicle, the estimated information being taken into consideration together with the mass of the vehicle during a rollover stabilization.

25. (Withdrawn) The vehicle-dynamics control system as recited in claim 24, wherein the information on the center of gravity of the vehicle is derived from an estimated characteristic speed.

26. (Withdrawn) The vehicle dynamics control system as recited in claim 22, wherein a sensor system includes sensors using a ratio of contact patch forces of opposite wheels is able to be ascertained.

27. (Previously Presented) The method as recited in claim 14, wherein information is estimated on a center of gravity of the vehicle, wherein the rollover stabilization algorithm is executed as a function of the vehicle mass and the information on the center of gravity of the vehicle, wherein the information on the center of gravity of the vehicle is at least one of (i) derived from an estimated characteristic speed, and (ii) ascertained from a ratio of contact patch forces of opposite wheels during cornering, and wherein one of an indicator variable or a characteristic property of the rollover stabilization algorithm is determined as a function of one of the mass of the vehicle or the mass of the vehicle and information on the center of gravity of the vehicle, the release of deactivation of the stabilization intervention being a function of the indicator variable.

28. (Previously Presented) The method as recited in claim 27, wherein the information on the center of gravity of the vehicle is ascertained from the estimated characteristic speed and from a ratio of the contact patch forces of opposite wheels during cornering.

29. (Previously Presented) The method as recited in claim 27, wherein one of a control threshold value, a system deviation or a controlled variable of the rollover stabilization algorithm is determined as a function of one of the mass of the vehicle or the mass of the vehicle and the information on the center of gravity of the vehicle.

30. (Previously Presented) A method for rollover stabilization of a vehicle in a critical driving situation, the method comprising:

ascertaining a mass of the vehicle;

executing a rollover stabilization algorithm;

the rollover stabilization algorithm intervening in a driver operation in a critical situation using an actuator in order to stabilize the vehicle; and

estimating information on a center of gravity of the vehicle;

wherein the rollover stabilization algorithm is executed as a function of the vehicle mass and the information on the center of gravity of the vehicle, and

wherein the information on the center of gravity of the vehicle is ascertained from a ratio of contact patch forces of opposite wheels during cornering.

31. (New) The method as recited in claim 14, wherein the center of gravity of the vehicle is estimated by evaluating a characteristic vehicle speed v_{ch}, which is a parameter in the Ackermann equation, which calculates a yaw rate $d\psi/dt$ of the vehicle according to the so-called "single-track model",

$$d\psi/dt = \frac{v_x \cdot \delta_R}{l \cdot \left(1 + v_x^{\ 2} : v_{ch}^{\ 2}\right)},$$

where v_x is the vehicle speed in the longitudinal direction, δ_R is the steering angle and v_{ch} is the characteristic vehicle speed, wherein when the center of gravity is shifted upwards, a vehicle demonstrates a more strongly understeering driving behavior, and consequently has a lower characteristic speed, and vice versa, wherein when there is a shifting of the center of gravity to the rear (at a constant mass and a constant height of the center of gravity), the vehicle demonstrates a less understeered vehicle behavior and consequently a greater characteristic speed v_{ch}, and vice versa, and wherein from a deviation of the estimated characteristic speed v_{chEst} from a nominal estimated speed v_{chNom}, at least qualitatively information is obtained on a position of the load, including at least one of a height of the center of gravity and a position in a longitudinal direction of the vehicle.

32. (New) The method as recited in claim 14, wherein the center of gravity of the vehicle, including a height of the center of gravity, is estimated from contact patch forces of the wheels at an inside wheel and an outside wheel during cornering, wherein at a high mass center of gravity, a contact patch force at the outer wheel is comparatively higher than for a low mass center of gravity (at an equal mass of the payload) at a same transverse acceleration, wherein because of an increased tendency of the vehicle to roll over, the outer wheels are more greatly unloaded at high mass center of gravity, and wherein from a ratio of the contact patch forces F_{Nl}/F_{Nr} of an inner wheel and an outer wheel, the height of the center of gravity of the vehicle is at least qualitatively estimated.

33. (New) The method as recited in claim 32, wherein the contact patch forces F_N of the inner wheel and the outer wheel are measured at least one of from a sensor system and from a ratio of tire slip values of the wheels, and wherein the wheel slips are determined using an ESP sensor system having rotary speed sensors.

34. (New) The method as recited in claim 32, wherein the center of gravity of the vehicle, including a height of the center of gravity, is also estimated from contact patch forces of the wheels at an inside wheel and an outside wheel during cornering, wherein at a high mass center of gravity, a contact patch force at the outer wheel is comparatively higher than for a low mass center of gravity (at an equal mass of the payload) at a same transverse acceleration, wherein because of an increased tendency of the vehicle to roll over, the outer wheels are more greatly unloaded at high mass center of gravity, and wherein from a ratio of the contact patch forces F_{Nl}/F_{Nr} of an inner wheel and an outer wheel, the height of the center of gravity of the vehicle is at least qualitatively estimated.

35. (New) The method as recited in claim 34, wherein the contact patch forces F_N of the inner wheel and the outer wheel are measured at least one of from a sensor system and from a ratio of tire slip values of the wheels, and wherein the wheel slips are determined using an ESP sensor system having rotary speed sensors.